Attachment **11**

San Diego Integrated Regional Water Management
Implementation Grant Proposal
Program Preferences

Attachment 11 consists of the following item:

- ✓ **Program Preferences.** This attachment contains information regarding how this *San Diego IRWM Implementation Grant Proposal* contributes to the Program Preferences set by PRC §75026.(b) and CWC §10544.

Program Preferences

The Program Preferences described in Section II.F of the IRWM Grant Program Guidelines are those set forth in PRC §75026.(b) and CWC §10544. These preferences are summarized in Table 11-1. Note that none of the proposed projects listed are applying for Stormwater Flood Management (SWFM) funding, and as such, none of the projects were evaluated with respect to the SWFM-specific Program Preference.

Table 11-1: Program Preferences and Statewide Priorities

Program Preferences	Statewide Priorities
1. Include regional projects or programs	1. Drought Preparedness
2. Effectively integrate water management programs and projects within a hydrologic region identified in the California Water Plan; RWQCB region or subdivision; or other region or sub-region specifically identified by DWR	2. Use and Reuse Water More Efficiently
3. Effectively resolve significant water-related conflicts within or between regions	3. Climate Change Response Actions
4. Contribute to attainment of one or more of the objectives of the CALFED Bay-Delta Program	4. Expand Environmental Stewardship
5. Address critical water supply or water quality needs of disadvantaged communities within the region	5. Practice Integrated Flood Management
6. Effectively integrate water management with land use planning	6. Protect Surface Water and Groundwater Quality
7. For eligible SWFM funding… (*not applicable*)	7. Improve Tribal Water and Natural Resources
8. Address Statewide priorities (*see right*)	8. Ensure Equitable Distribution of Benefits

Each of the projects included within this proposal is ready to proceed, and was identified as a Tier 1 priority project by the Regional Water Management Group (RWMG), Regional Advisory Committee (RAC), and Project Selection Workgroup in accordance with the project prioritization process that was approved and adopted in the 2007 IRWM Plan. As a result of the thorough analysis that was performed on these projects by the Project Selection Workgroup and analysis that was completed with respect to monitoring, assessment, and performance measures (refer to Attachment 6), we are **fully certain** that each of the projects included in this Proposal will provide the benefits described below.

The package of projects included in this Proposal will address each of the aforementioned Program Preferences on a local, regional, or statewide scale. These terms, used to define the breadth and magnitude to which each project addresses the Program Preferences, are defined as follows:

- *Local*: Project benefits are focused locally within the project area.
- *Regional*: Project benefits extend throughout the San Diego IRWM Region.
- *Statewide*: Project benefits are widespread and will benefit not only the Region, but also other areas throughout California.

Table 11-2 identifies the Program Preferences that will be addressed by each of the proposed projects and demonstrates the magnitude and breadth to which each Program Preference will be addressed.

Table 11-2: Proposed Projects and Program Preferences

Proposed Projects	1: Regional Projects	2: Integrate Water Mgmt	3: Resolve Conflict	4: Bay-Delta Objectives	5: Benefits DACs	6:Land Use Planning	7: Statewide Priorities
Water Supply / Recycled Water Program							
Sustainable Landscapes Program	✓	✓	✓	✓		✓	✓
North San Diego County Regional Recycled Water Project	✓	✓	✓	✓			✓
North San Diego County Cooperative Demineralization Project	✓	✓	✓	✓			✓
Rural Disadvantaged Community (DAC) Partnership Project		✓	✓		✓		✓
Water Quality/ Stormwater Program							
Lake Hodges Water Quality and Quagga Mitigation Measures	✓	✓	✓	✓			✓
Implementing Nutrient Management in the Santa Margarita River Watershed		✓	✓				✓
Bannock Avenue Neighborhood Streetscape Enhancements for Tecolote Creek Watershed Protection		✓	✓			✓	✓
Pilot Concrete Channel Infiltration Project		✓	✓				✓
San Diego Regional Water Quality Assessment and Outreach Project	✓	✓	✓		✓		✓
Natural Resources and Watersheds Program							
Chollas Creek Integration Project		✓	✓		✓	✓	✓
Data Management Program							
Regional Water Data Management Program	✓	✓	✓				✓
Degree of Certainty Preferences Will Be Addressed	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH
Magnitude and Breadth to Which Preference will be Addressed	Region	Region	Region	State	Local	Region	Region

Program Preference 1: Include Regional Projects or Programs

As shown in Table 11-2, four projects within this proposal include regional projects or programs. As evident in Figure 3-1 (see Attachment 3), these projects all span throughout the region, and have a regional emphasis. As such, these programs are considered regional pursuant to CWC §10544, and it is fully certain that these projects will adhere to this Program Preference on a regional level.

Sustainable Landscapes Program: This project consists of a suite of activities designed to increase water efficiency and reduce watershed pollutants throughout the region's 11 watersheds.

North San Diego County Regional Recycled Water Project: This project will result in a plan to consolidate several North San Diego County recycling projects into an integrated, comprehensive recycling program that will serve 11 partners in the North County subregion.

North San Diego County Cooperative Demineralization Project: This project aims at creating sustainable and diverse local water supplies for the North County subregion.

Lake Hodges Water Quality and Quagga Mitigation Measures: This project aims to improve the ability to deliver water within San Diego County during a significant water supply outage and to improve the quality of Lake Hodges water, which is delivered throughout the region via the regional distribution system.

San Diego Regional Water Quality Assessment and Outreach Project: This project includes monitoring and assessment on a regional level (7-8 watersheds) by San Diego Coastkeeper volunteers.

Regional Water Data Management Program: This project identifies and prioritizes regional data needs, and then establishes the framework for a regional, web-based system of water management data and information.

Program Preference 2: Effectively Integrate Water Management Programs and Projects within the San Diego IRWM Region

All of the projects included within this proposal will address the Program Preference of effectively integrating water management programs and projects. DWR specifically approved the San Diego IRWM region as part of the Region Acceptance Process that was in 2009. Each of the eleven projects listed within this Proposal would be contained within this DWR-identified region.

Sustainable Landscapes Program: This program aims to educate and develop community and stakeholder groups in order to change long-term landscape behavior to reduce water use and to further diversify water supply in the San Diego IRWM region. This project consists of a suite of activities designed to increase water efficiency and reduce watershed pollutants by a broad range of stakeholders throughout the San Diego IRWM region and is linked to numerous other conservation programs.

North San Diego County Regional Recycled Water Project: The *North San Diego County Cooperative Demineralization Project* and this project are being developed in tandem to address the regional need for a diversified water portfolio by providing more recycled water. The purpose is to produce a regional recycled water project supported by 11 project partners within the San Diego IRWM region. This project will provide a sustainable, reliable water resource for North San Diego County and the region.

North San Diego County Cooperative Demineralization Project: The *North San Diego County Regional Recycled Water Project* and this project are being developed in tandem to address the regional need for a diversified water portfolio by providing more recycled water. This project is integrated with multiple projects and programs throughout the region.

Rural Disadvantaged Community (DAC) Partnership Project: The goal of this project is to provide funding to address inadequate water supply and water quality issues affecting rural DACs. Through DAC outreach that will occur as part of this project, information on the overall San Diego IRWM program and any selected projects that may benefit DACs will be distributed.

Lake Hodges Water Quality and Quagga Mitigation Measures: This project will evaluate the methods to improve Lake Hodges water quality and protect water treatment infrastructure reliability, and is integrated with the region's *San Dieguito Watershed Management Plan Implementation Project–Lake Hodges Natural Treatment System Conceptual Design* Prop 50 project. Due to the location of this project and its integration with the aforementioned project, it is fully certain that this project meets Program Preference.

Implementing Nutrient Management in the Santa Margarita River Watershed: This project aims at establishing nutrient water quality objectives for the Santa Margarita River estuary. Due to its watershed-level scale, this project is linked to a large list of other projects (refer to Attachment 3). This project will effectively integrate water management programs and projects throughout the Santa Margarita watershed, because results and conclusions from this project will lead to the implementation of nutrient reduction and water conservation practices throughout the entire watershed.

Bannock Avenue Neighborhood Streetscape Enhancements for Tecolote Creek Watershed Protection: The Tecolote Creek watershed spans roughly 5,992 acres, discharges to the southern portion of Mission Bay. This project will implement a series of actions to reduce pollutant load and volume runoff from entering the Tecolote Creek watershed. This project is connected to a series of projects identified within the City of San Diego's Five-Year Strategic Plan for Watershed Activity Implementation, and other projects that aim to improve water quality and supply within the Tecolote Creek watershed.

Pilot Concrete Channel Infiltration Project: This project will convert a portion of the concrete channel in Woodglen Vista Creek located in the City of Santee to a more porous base, which will allow for better infiltration of dry weather flows without compromising the creek's flood control capacity. This project directly links with the Woodglen Vista Creek and Forester Creek restoration projects, which lie within the San Diego IRWM region.

San Diego Regional Water Quality Assessment and Outreach Project: Volunteer water quality monitoring for this project will be performed throughout the San Diego IRWM region. This project builds capacity for water quality efforts through volunteer training that will benefit other regional projects.

Chollas Creek Integration Project: The data gathered as part of this project will update the Chollas Creek Enhancement Program. The Opportunities Assessment will operate in parallel with the Chollas Creek Section 2A Restoration Project, which will inform the analysis and planning for implementation of the Chollas Creek Enhancement Program throughout the larger watershed.

Regional Water Data Management Program: This project will make water quality data for the entire San Diego region, and therefore for many other projects and programs through development of online data management tools.

Program Preference 3: Effectively Resolve Significant Water-Related Conflicts

The IRWM Plan Objectives were established as a result of an open and transparent stakeholder process, where all RWMG, RAC, and other stakeholders were invited to voice their significant issues and conflicts within the region. Together, the eleven projects address eight of the nine Plan Objectives, and therefore effectively resolve water-related conflicts identified by the comprehensive stakeholder group.

In addition, each project resolves local funding issues through their inclusion in this proposal. Each of these projects will help to alleviate regional conflicts associated with a short supply of regional funding. The analysis below provides specific information on how each project will effectively resolve significant water-related conflicts within the San Diego region. Due to the degree of analysis performed on these projects, it is fully certain that this proposal will meet the Program Preference of effectively resolving significant water-related conflicts throughout the San Diego Region (on a regional level).

Sustainable Landscapes Program: This program is a multifaceted project that consists of a suite of activities designed to increase water efficiency and reduce watershed pollutants throughout the region. The program will assist the region in decreasing reliance on imported water supplies, improving water efficiency, and reducing pollutant discharges into watersheds. The program's overarching benefits will resolve jurisdictional conflicts by reducing demand for imported water supplies and will complement other water supply and quality projects in the region.

North San Diego County Regional Recycled Water Project: This project will provide for a comprehensive recycled water program by consolidating North San Diego recycled water projects to meet a regional need. The range of this project will eliminate jurisdiction conflicts, and the individual water projects will complement each other, allowing the region to move forward with water supply and conservation efforts. In addition, this project will conduct a systems assessment of the recycled water systems of each project partner, and develop recommendations for projects that interconnect and maximize use of recycled water within the combined service area. The unified, regional approach that this project adheres to provides conflict reduction by identifying and assessing regulatory compliance issues. Lastly, the *North San Diego County Cooperative Demineralization Project* and this project are being developed in tandem to address the regional need for a diversified water portfolio by providing more recycled water.

North San Diego County Cooperative Demineralization Project: This project will construct water infrastructure designed to deliver a local and reliable supply of water to the region eliminating any jurisdictional boundary conflicts. This project includes efforts by SEJPA and OMWD - in collaboration with the City of Encinitas Clean Water Program, the City of Solana Beach Storm Water Division, and the San Elijo Lagoon Conservancy - to conduct water management outreach to area residents. This project unifies several organizations in order to accomplish regional regulatory compliance issues. This project will also implement facilities to intercept and treat high-TDS first-flush storm water and dry weather urban runoff that would otherwise reach San Elijo Lagoon and Pacific Ocean; this facet of the project will reduce source of pollutants and environmental stressors effectively resolving water quality conflicts.

Rural DAC Partnership Project: There is a critical need for safe drinking water in unincorporated DACs in the San Diego IRWM Region. This project will benefit numerous DACs throughout the San Diego IRWM Region by supporting DACs in implementing projects that will solve critical water or wastewater system issues; these efforts will help eliminate any jurisdictional conflicts. DAC projects will be selected by stakeholder committees allowing opportunities for projects to be carefully considered in order to complement other plans/projects. This approach will reduce any potential for competing plans.

Lake Hodges Water Quality and Quagga Mitigation Measures: Lake Hodges reservoir is a water source that provides water supplies to a large portion of the San Diego region. Its distribution system alone overcomes jurisdictional differences by uniting multiple jurisdictions on matters that deal with regional water reliability, supply and conservation. This project will provide conflict resolution by maintaining infrastructure required to deliver Lake Hodges water within the region, therefore decreasing reliance on imported water supplies. This will alleviate other water demand conflicts felt by neighboring regions that rely on the same imported water source(s). This project will therefore help reduce/prevent conflicts by moving other region-focused projects forward without threatening their individual project objectives.

Implementing Nutrient Management in the Santa Margarita River Watershed: This project aims to establish nutrient Water Quality Objectives (WQOs) for the Santa Margarita River estuary (Phase I) and ultimately the entire watershed (Phase II) that will lead to the implementation of nutrient reduction and water conservation practices in the watershed. The execution of this project will address water quality concerns between San Diego and Riverside Counties and will avoid jurisdictional interests by bringing the two counties together to achieve project goals. Due to its watershed-level scale, this project will resolve conflicts by complementing existing plans. This project will also resolve water quality related conflicts by developing nutrient WQOs that will help reduce sources of pollutants, specifically nutrients, and other environmental stressors associated with runoff.

Bannock Avenue Neighborhood Streetscape Enhancements for Tecolote Creek Watershed Protection: This project will reduce the volume of storm runoff entering the storm sewer system, and therefore will reduce a corresponding volume of targeted pollutants directed into the Tecolote Creek and Mission Bay. The project will directly improve the protection of the recreational uses in Mission Bay, which have been regarded as a regional recreational asset. The City of San Diego anticipates implementing 72 infiltration and runoff reduction projects similar to the proposed project. This synergy reduces the regulatory limitations or conflicts it may face in the future if other projects are setting legislative precedents. Further, this project complements the other 72 infiltration projects and will add to regional progress toward meeting water quality goals and objectives.

Pilot Concrete Channel Infiltration Project: This project is expected to reduce bacteria levels through infiltration, thereby addressing conflicts associated with water quality violations in the San Diego River and helping the region reach TMDL goals. These actions will also reduce sediment loads and turbidity in runoff, which will effectively mitigate sources of pollutants and resolve environmentally-related conflicts in the San Diego River. In addition, the project will overcome regulatory constraints by providing a unified approach for identifying bacteria compliance issues. This project will also promote infiltration and potentially augment the local aquifer. This potential water supply enhancement has the opportunity to reduce water demand conflicts between jurisdictions and complement other water supply projects.

San Diego Regional Water Quality Assessment and Outreach Project: This project brings together community members to understand and actively participate in the monitoring of their watershed health. Outreach efforts associated with this project will solve jurisdictional conflicts by bringing together several communities, while the active participation and monitoring will provide direct solutions to conflicts regarding watershed health and cleanliness. This project will also address conflicts regarding environmental challenges by coordinating trash removal events. Lastly, data that will be collected during sampling events will support strategic planning to reduce the need for pollutant removal by addressing the causes of pollution.

Chollas Creek Integration Project: This project will improve water quality, reduce flooding, and identify land use opportunities for preserving open green space and habitat for the Encanto and Chollas Creek areas. This inclusion will help resolve jurisdictional interests by bringing agencies together to implement restoration activities. In addition, this project will address conflicts relating to water quality by effectively reducing sources of pollutants and environmental stressors.

Regional Water Data Management Program: This project will establish a web-based system that will make data instantly available to interested stakeholders and will facilitate data sharing by transmitting data through user-friendly features. This regionally-scaled project avoids jurisdictional conflicts and includes data collection efforts of many unified stakeholders. This cooperative effort addresses regulatory compliance issues collectively, making regulatory constraints easier to address.

Program Preference 4: Contribute to Attainment of One or More of the Objectives of the CALFED Bay-Delta Program

The CALFED Bay-Delta Program has the following four objectives:

- *Water Quality*: to invest in projects that improve the State's water quality from source to tap.
- *Water Supply*: comprised of five critical elements: conveyance, storage, environmental water account, water use efficiency and water transfer.
- *Ecosystem Restoration*: aims at restoring habitats, ecosystem functions, and native species.
- *Levee Integrity*: to protect water supplies by reducing the threat of levee failures.

As described below, five projects meet three of the four CALFED Bay-Delta Program objectives: water quality, water supply, and ecosystem restoration. Due to the degree of analysis performed on these projects, it is fully certain that this proposal will meet the Program Preference of contributing to attainment of one or more of the objectives of the CALFED Bay-Delta Program (on a statewide level).

Sustainable Landscapes Program

○ *Water Supply*: The program will modify long-term landscape behavior ("norms") to reduce water use, diversify water supply, and potentially reduce local dependence on imported Bay-Delta water.

○ *Ecosystem Restoration*: By reducing dependence on Bay-Delta water supplies, this project will help to protect and improve the Bay-Delta ecosystem.

North San Diego County Regional Recycled Water Project

○ *Water Supply*: By joining projects and working cooperatively this project will vastly improve the reliability of recycled water supply in the region. This will help achieve water use efficiency objectives set out by CALFED and thereby reduce demands for imported Bay-Delta water supply.

○ *Ecosystem Restoration*: By reducing dependence on Bay-Delta water supplies, this project will help to protect and improve the Bay-Delta ecosystem.

North San Diego County Cooperative Demineralization Project

○ *Water Supply*: This project will achieve water supply objectives by developing 1120 AFY of potable water through brackish water desalination and 560 AFY of recycled water through advanced treatment. This will help achieve water use efficiency objectives set out by CALFED and thereby reduce demands for imported Bay-Delta water supply.

○ *Ecosystem Restoration*: By reducing dependence on Bay-Delta water supplies, this project will help to protect and improve the Bay-Delta ecosystem.

Lake Hodges Water Quality and Quagga Mitigation Measures

○ *Water Supply*: This project will connect Lake Hodges to SDCWA's delivery system, increasing local supply water supply, and potentially helping to implement CALFED objectives by reducing dependence on imported Bay-Delta water supply.

○ *Ecosystem Restoration*: By reducing dependence on Bay-Delta water supplies, this project will help to protect and improve the Bay-Delta ecosystem.

Program Preference 5: Address Critical Water Supply or Water Quality Needs of DACs

DWR specifies that preference will be given to Proposals that include projects that will include safe drinking water and water quality projects that serve DACs. Three proposed projects address critical water supply or water quality needs of DACs within the region. Due to the degree of analysis performed on these projects, it is fully certain that this Proposal will meet the Program Preference of addressing critical water supply or water quality needs of DACs within San Diego region (on a regional level).

Rural DAC Partnership Project: This project will address inadequate water supply and water quality affecting rural DACs, including tribal communities. The project will reduce potential for high public health risks in water and/or wastewater systems specifically for DACs through the implementation of projects that will solve these critical issues.

San Diego Regional Water Quality Assessment and Outreach Project: The data gathered as part of this project will fill spatial and temporal data gaps and will help the region identify current water conditions and pollutant sources. Once pollutants are identified, addressing water quality needs of the region and DACs in the region will be much easier and more efficient.

Chollas Creek Integration Project: The creek restoration and pollution prevention strategies that are part of this project will serve dual purposes: (1) improve water quality conditions and (2) protect water supplies in the Encanto area, a disadvantaged urban community.

Program Preference 6: Effectively Integrate Water Management with Land Use Planning

Many of the land use plans and regulations of land-use agencies within the Region are consistent with the water management goals, objectives, and strategies included in the San Diego IRWM Plan. Due to the degree of analysis performed on these projects, it is fully certain that this Proposal will meet the Program Preference of integrating water management with land use planning in the region (on a regional level).

Sustainable Landscapes Program: This program will require actions such as altering paved streets, constructing bioretention planter systems, and installing pervious sidewalks. Land use planning will be involved as it will assist in the implementation of these water management strategies. Partnering with land use planning agencies will allow mutual objectives of the project and land use planning to be achieved.

Bannock Avenue Neighborhood Streetscape Enhancements for Tecolote Creek Watershed Protection: The water quality management strategies of this project will capture storm water runoff which will provide a source for irrigation water supply for the Bannock Avenue streetscape. Additionally, the project will include community enhancements such as displays and literature signage to raise community awareness of the project. These aspects of the project will necessitate collaboration with local land use planners to meet their mutual goals of protecting the Region's habitat, improving surface water, and monitoring stormwater runoff.

Chollas Creek Integration Project: The project seeks to develop an Opportunities Assessment that identifies land use opportunities for preserving open green space and habitat. The Opportunities Assessment will identify and prioritize location and types of upland and wetland restoration projects in the Pueblo Hydrologic Unit. This project will also restore native habitat within Chollas Creek by replacing non-native plants with native riparian vegetation (including Laurel Sumac, California Holly, Coastal Sagebrush, and willows), removing debris, and protecting seasonal nesting areas within the creek.

Program Preference 7: Address Statewide Priorities

This proposal will either directly or indirectly address every Statewide Priority established by DWR. Table 11-3 demonstrates which Statewide priorities are addressed by each of the proposed projects. As part of the project prioritization and ranking process, each project submitted to the San Diego IRWM Plan was evaluated for its consistency with Statewide priorities. As such, based on the level of analysis for each project, it is fully certain that each of these projects and the proposal will achieve the Statewide priorities at a regional level (throughout the San Diego region).

Table 11-3: Proposed Projects and Programs with Statewide Priorities

Proposed Projects	Drought Preparedness	Reuse Water More Efficiently	Climate Change Response Actions	Expand Environmental Stewardship	Practice Integrated Flood Management	Protect Surface/ Groundwater Quality	Improve Tribal Water/Natural Resources	Ensure Equitable Distribution of Benefits
Water Supply/ Recycled Water Program								
Sustainable Landscapes Program	●	●	●		●	●		●
North San Diego County Regional Recycled Water Project	●	●	●			○		
North San Diego County Cooperative Demineralization Project	●	●	●			●		
Rural Disadvantaged Community (DAC) Partnership Project	●	●				●	●	●
Water Quality/ Stormwater Program								
Lake Hodges Water Quality and Quagga Mitigation Measures			●			●		
Implementing Nutrient Management in the Santa Margarita River	●	●	○			●		
Bannock Avenue Neighborhood Streetscape Enhancements for Tecolote Creek Watershed Protection					●	●		
Pilot Concrete Channel Infiltration Project			○	●	○	●		
San Diego Regional Water Quality Assessment and Outreach						●		●
Natural Resources and Watersheds Program								
Chollas Creek Integration Project		●	●	●	●	●		●
Data Management Program								
Regional Water Data Management Program			○					

○ indirectly related; ● directly related

Sustainable Landscapes Program

○ *Drought Preparedness*: The program will help achieve drought preparedness by conserving water and improving landscape irrigation efficiencies.

○ *Reuse Water More Efficiently*: This program will aid the region in improving water efficiency through changing landscaping practices and behaviors.

○ *Climate Change Response Action*: Sustainable landscapes use less water and utilize design features to retain rainwater onsite, making them adaptable to climate change. Any contribution to climate change, such as landscape renovation activities, will be mitigated through the implementation of the sustainable landscape program (less water, energy, and waste).

○ *Practice Integrated Flood Management*: Promoting sustainable landscaping will incorporate the maximization of rainwater capture for irrigation use. This will reduce erosion which could potentially serve a flood management tactic.

○ *Protect Surface/Groundwater Quality*: Residential and commercial landscaping will conserves water and minimizes pollutants(pesticides and fertilizers) through this program, reducing the source and amount of chemical pollutants that would otherwise become part of storm water runoff.

○ *Ensure Equitable Distribution of Benefits*: This program will educate all community members, including those from DACs on sustainable landscaping. The project will have multiple benefits including conserving water supplies, improving drought preparedness, and enhancing water quality.

North San Diego County Regional Recycled Water Project

○ *Drought Preparedness*: Maximizing recycled water use through this project will improve landscape and agricultural irrigation efficiencies, promoting water reuse/recycling and water conservation. This project will contribute to long-term drought preparedness by contributing to a more sustainable water supply and increased reliability during water shortages.

○ *Reuse Water More Efficiently*: This recycled water project's main goal is to ensure that all recycled water produced in the subregion is efficiently and effectively distributed to their customers.

○ *Climate Change Response Action*: This project provides greater connectivity and reliability for a non-potable supply. This will help the region reduce dependence on imported water supplies and the climate change impacts associated with long-distance water transfers. Expansion of recycled water systems ensures water supply availability and reliability should imported water supplies be reduced due to changing climates. The recycling projects developed as part of this project will include energy efficiency measures in accordance with AB 32 and CEQA.

○ *Protect Surface/Groundwater Quality*: This project will indirectly improve surface/groundwater quality conditions by decreasing wastewater discharges and thus curbing the associated effects of pollution.

North San Diego County Cooperative Demineralization Project

○ *Drought Preparedness*: This project aims to achieve long term reduction of water use by increasing the production of recycled water by 560 AFY. This project therefore effectively addresses long-term drought preparedness by enhancing water supply reliability in times of water shortage.

○ *Reuse Water More Efficiently*: The project will reuse brackish water by desalinizing it into potable water. This project will create greater water efficiency by reducing fresh water consumption.

○ *Climate Change Response Action*: This project will increase local water supplies by 1680 AFY, thereby reducing greenhouse gasses associated with transportation of potable water from outside the San Diego region. In addition, the demineralization facility will be sheltered at approximately 35 feet above mean sea level in a valley sheltered from extreme winds. This project creates 560 AFY of recycled water and 1120 AFY of potable water, reducing the energy demands required to import 1680 AFY of water. Additionally, it is designed with photovoltaic panels to mitigate energy impacts and for variable output operation so that certain processes may be shut down during low demand.

○ *Protect Surface/Groundwater Quality*: This project will address high TDS issues in recycled water, and urban runoff quality discharged to San Elijo Lagoon and the Pacific Ocean.

Rural DAC Partnership Project

○ *Drought Preparedness*: Management practices carried out by selected projects will promote water conservation, reuse and recycling which all effectively address long-term drought preparedness.

○ *Reuse Water More Efficiently*: Projects that address conservation of groundwater and surface water supplies, water reuse and/or regionalization will be priorities during rural DAC project selection. Efficient use of finite water supplies and energy resources will be incorporated into DAC projects when appropriate and affordable.

○ *Protect Surface/Groundwater Quality*: The goal of the project will be to provide funding to DACs to address inadequate water supply and water quality.

○ *Improve Tribal Water/Natural Resources*: RCAC will manage the grant funds to address inadequate water supply and water quality in rural DACs, including tribal communities. RCAC has also created a 'Green Infrastructure Guide' for DACs (including tribal communities) with the intent of limiting pollution and environmental stressors due to aging infrastructure. Using this guide and other reputable guidance during project development will help assure that new infrastructure supports environmentally sound and efficient projects that will better sustain water and natural resources.

○ *Ensure Equitable Distribution of Benefits*: This project will give rural DACs within the San Diego region an opportunity to submit projects, thereby ensuring equitability in the IRWM process. Project selection will select projects depending on how well they address public health risks in water and or wastewater systems; the projects will undoubtedly solve safe drinking water needs, water quality and water supply needs of Tribes within the region ensuring multiple benefit distribution.

Lake Hodges Water Quality and Quagga Mitigation Measures

○ *Climate Change Response Action*: Increased use of local supply is important with the uncertain future of imported water supplies due to climate change, environmental restrictions on pumping in the Delta, decreased water supplies, etc. Further, hydroelectric power produced by this project reduces greenhouse gas emissions by reducing the need for coal based energy production.

○ *Protect Surface/Groundwater Quality*: This project produces a plan and implements measures to reduce turbidity, increase oxygen in lower levels of the reservoir, reduce manganese, reduce entry of nutrients into the reservoir to lower algal activity, and combat effects of quagga mussels on linked reservoirs and connected facilities.

Implementing Nutrient Management in the Santa Margarita River Watershed

○ *Drought Preparedness*: This project will help fill data gaps that will ultimately guide implementation programs that have the potential to improve landscape and agricultural irrigation efficiencies.

Reuse Water More Efficiently: Through implementation of irrigation optimization and BMPs to reduce nutrient runoff from wet and dry weather sources, this project will eventually improve water conservation and recycling allowing for efficient use of a diverse mix of water resources.

○ *Climate Change Response Action*: The project will result in the reduction of stressors to native stream and estuarine flora and fauna, which decreases their susceptibility to stressors associated with long-term climate change. This project will help provide a carbon offset by improving water conservation.

○ *Protect Surface/Groundwater Quality*: This project will develop nutrient WQOs that will help reduce sources of pollutants, specifically nutrients, and other environmental stressors associated with point and non-point source runoff that discharge into surface waters.

Bannock Avenue Neighborhood Streetscape Enhancements for Tecolote Creek Watershed Protection

○ *Practice Integrated Flood Management*: The project is located in a largely impervious area and plans to increase impervious surfaces to directly meet water quality needs and indirectly integrate flood management practices. The incorporation of impervious surfaces to this area will reduce flooding by enhancing stormwater runoff infiltration and capture opportunities.

○ *Protect Surface/Groundwater Quality*: The porous pavement, bioretention planter cells, and AbTech units will reduce the total pollutants entering the storm drain system improving surface water quality conditions. It is also anticipated that the infiltration process will remove pollutants from urban runoff before reaching groundwater supplies.

Pilot Concrete Channel Infiltration Project

○ *Climate Change Response Action*: This project will help prevent surface water pollution helping to preserve habitat within the watershed. The project, with the addition of plant life and infiltration, will have a

positive effect on climate change. The project will help reduce greenhouse gases in the atmosphere and recharge aquifers to prepare for any future climate scenarios.

○ *Expand Environmental Stewardship*: The project will garner community participation in preparing the site for the project and will educate the community on the benefits of this project.

○ *Practice Integrated Flood Management*: The porous base that will be introduced by this project will integrate flood management. This project eliminates some of the disadvantages associated with a concrete channel without losing the flood control benefits of the channel. Infiltration will reduce the volume of flows from the concrete channel providing improved flood protection and more sustainable flood and water management systems.

○ *Protect Surface/Groundwater Quality*: The project will contribute to water quality protection and improvement through stormwater capture and infiltration, reduction of impervious surfaces and reduction in pollutant (specifically bacteria) loading.

San Diego Regional Water Quality Assessment and Outreach Project

○ *Protect Surface/Groundwater Quality*: This project will build on data previously generated to characterize water quality in the County. Samples will be analyzed for ambient, nutrient, bacterial, toxicity, dissolved metal and bioassessment indicators. Data collected during events will support strategic planning to reduce the need for pollutant removal by addressing the causes of pollution.

○ *Ensure Equitable Distribution of Benefits*: The monitoring efforts of this project will encourage participation from volunteers from communities all over the county, including DACs. This project will ultimately provide regional benefits that will be distributed equitably. Monitoring locations for this projected are located within and/or around several DACs allowing project benefits to reach them.

Chollas Creek Integration Project

○ *Reuse Water More Efficiently*: This project will identify water improvement strategies that will help solve issues regarding the capture and treatment of stormwater runoff. These strategies may contribute to long term water supply conservation and reliability coming from Chollas Creek.

○ *Climate Change Response Action*: The Opportunities Assessment will lead to a comprehensive hydrology study which will include climate change planning related to flood control. It will point to trail enhancements that reduce carbon emissions. Additionally, it will serve as the catalyst for a shared climate change education and outreach strategy for all watershed educators.

○ *Expand Environmental Stewardship*: The project will utilize a stakeholder-driven process to develop a conceptual watershed management work plan, prioritize restoration and maintenance needs, develop funding strategies, and institutionalize community-based water and habitat conservation and stewardship.

○ *Practice Integrated Flood Management*: The project will complete a comprehensive analysis of existing conditions, constraints, and opportunities for flood control. Within the Chollas Creek section, this project will reduce flooding caused by channelization, soil erosion/sedimentation, and dumping of trash and construction debris into the creek through structural modifications and habitat restoration.

○ *Protect Surface/Groundwater Quality*: The Opportunities Assessment will compile/generate the watershed hydrological data needed to recommend and prioritize water quality improvement strategies, including pollution control projects and low impact development structural approaches. These improvement/management strategies will protect surface/groundwater quality.

○ *Ensure Equitable Distribution of Benefits*: This project will contribute to analysis and planning for water quality, flood control, habitat restoration and open space. The distribution of the program's benefits will be equally beneficial to the citizens of the Chollas Creek and Encanto areas.

Regional Water Data Management Program

○ *Climate Change Response Action*: The regional water data management system will have the potential to track GHG inventory and any changes to CHG over time through project implementation.